

## 2009 WHIP Riparian Forest Buffer (391) Requirements

**Eligible lands:** Private agricultural land, private nonindustrial forestland, and tribal lands where is an insufficient riparian forest buffer to protect waterbodies from surface runoff. Additionally, this practice must be applied immediately adjacent to streams having perennial flow, seasonal streams, sinkholes, karst areas, other ground water recharge areas, wetlands, ponds, and lakes.

The practice purpose is to remove nutrients, sediment, and other pollutants from surface runoff by deposition, absorption, plant uptake, denitrification, and other processes, thereby improving water quality for both aquatic and terrestrial wildlife.

### I. WHIP Riparian Forest Buffer Practice Requirements:

1. Soil test required for all permanent herbaceous plants. (University of Tennessee or any certified NPTP Lab). Areas of contrasting soils, problem spots or portions of fields significantly different should be sampled separately, provided the area can be fertilized separately. Examples: bottomland and upland. See University of Tennessee publication PB 1061 ([UT PB1061](#)) for soil sampling information. For NWSG, if pH is 5.5 or higher apply no lime; if lower apply 2 tons per acre, no nitrogen at planting, apply P2O5 and K2O as recommended in soil sample all other requirements must be met.
2. **Lime and fertilizer are not required for trees, shrubs, or temporary cover.** For permanent herbaceous cover, apply lime and fertilizer as required by soil test (University of Tennessee soil test recommendation).
3. Planted areas shall not be grazed by domestic livestock for the life of the agreement.
4. Native warm season grass stands may be harvested once per year beginning with the third growing season, and may only be harvested between July 1 and August 15.
5. Herbicides are to be used in accordance with the label for tame grass eradication or weeds or when the no-till planting method is used.
6. For crop and grassland fields where a buffer area (woods or grassland) already exists between the water body and the field, the following applies:
  - If the existing wooded buffer is 30 percent or more of the geomorphic floodplain, or a minimum of 150 feet, cost share is **NOT AUTHORIZED**.
  - If the existing wooded buffer is less than 30 percent of the geomorphic floodplain, cost share **IS AUTHORIZED** to extend the existing wooded buffer up to 30 percent of the geomorphic floodplain, or a maximum of 150 feet, whichever is less.
7. Riparian forest buffers must be a minimum of 30 percent of the geomorphic flood plain. It cannot be less than 35 feet or wider than a maximum of 150 feet.
8. The riparian forest buffer may consist of all three zones. Zones 1 and 2 are required to meet the minimum width of 35 feet. Zone 3 is optional and cannot be less than 15 feet or wider than 30 feet. **Zone three, if used, must be established to native warm season grass/forb mixtures.**
9. Natural regeneration of herbaceous vegetation is an acceptable cover on capability classes I and II soils, and only tame grass or weed eradication and temporary cover, if needed, may be cost shared.
10. Prescribed Burning may be used as a component for site preparation.

Planting recommendations for **Riparian Forest Buffers** are given in the table below:

Temporary Cover – Winter		
Species	Amt/Ac	Seeding Dates
Crimson Clover (lbs)	20.0	Aug 1 – Oct 1
Winter Wheat (lbs)	1.5 – 2 bu	Sept 1 – Oct 20
Cereal Rye (lbs)	1.5 – 2 bu	Sept 1 – Oct 20
Wheat & Crimsom Clover (lbs)	1 bu; 10 lbs	Sept 1 – Oct 20
Rye & Crimson Clover (lbs)	1 bu; 10 lbs	Sept 1 – Oct 20
Temporary Cover – Summer		
Species	Amt/ac	Seeding Dates
Millet, White Proso (lb)	20.0	May 1 – July 1
Millet, Foxtail (lb)	20.0	May 1 – July 1
Buckwheat (lb)	30.0	May 1 – Aug 1
Corn (w/Eastern Gamagrass only)*	12,000-16,000 plants/ac = 1/7 bu	June 1

Moist Site Mixture		
Ladino Clover (lb)	4.0	Feb 20 – Apr 1 Aug 15 – Oct 1
Alsike Clover (lb)	5.0	
Berseem Clover (temporary cover) (lb)	5.0	
Winter Wheat (temporary cover) (lb)	25.0	
Dry Site Mixture		
Red Clover (lb)	7.0	Feb 20 – Apr 1 Aug 15 – Oct 1
Chicory (lb)	2.0	
Crimson Clover (temporary cover) (lb)	5.0	
Winter Wheat (temporary cover) (lb)	25.0	
Single Species Seeding		
Reseeding Soybean (Quailhaven) (lb)	20.0	Apr 15 – June 15
Kobe Lespedeza (lb)	20.0	Apr 15 – June 15
Korean Lespedeza	20.0	Apr 15 – June 15
Partridge Pea	12.0	Apr 15 – June 15
Eastern Gamagrass	10.0	Dec 1 – July 1
Warm Season Native Mix - Tall Mix for Deer/Turkey		
Species	Amt/ac	Seeding Dates
Big Bluestem** (lb)	1.0	Dec 1 – July 1
Indiangrass** (lb)	1.0	
Little Bluestem** (lb)		
Sideoats Grama** (lb) <u>and either:</u>	1.0	
Kobe/Korean Lespedeza (lb) <u>or</u> a	1.0	
single or mix of:	5.0	
1)Illinois Bundleflower (lb)		
2)Partridge Pea (lb)	1.0	
Warm Season Native Mix - Short Grass Mix for Quail/Rabbit		
Species	Amt/ac	Seeding Dates
Little Bluestem** (lb)	3.0	Dec 1 – July 1
Indiangrass** (lb)	0.5	
Sideoats Grama** (lb) <u>and either:</u>	1.0	
Kobe/Korean Lespedeza <u>or</u>	5.0	
a single or mix of:		
1) Illinois Bundleflower	1.0	
2) Partridge Pea		
Broadcast Planting Mix		
Species	Amt/ac	Seeding Dates
Switchgrass** (lb)	8.0	Apr 1 – July 1
Kobe/Korean Lespedeza (lb)	5.0	
Eligible Trees		
Species	Amt/ac	Seeding Dates
Yellow Poplar	12 x 12 (302/ac)	Nov 1 – Apr 1
White Ash	12 x 12 (302/ac)	Nov 1 – Apr 1
Green Ash	12 x 12 (302/ac)	Nov 1 – Apr 1
Hickory	12 x 12 (302/ac)	Nov 1 – Apr 1
Pecan	12 x 12 (302/ac)	Nov 1 – Apr 1
Black Walnut	12 x 12 (302/ac)	Nov 1 – Apr 1
Blackgum	12 x 12 (302/ac)	Nov 1 – Apr 1
River Birch	12 x 12 (302/ac)	Nov 1 – Apr 1
Persimmon	12 x 12 (302/ac)	Nov 1 – Apr 1
Cherrybark Oak	12 x 12 (302/ac)	Nov 1 – Apr 1
Willow Oak	12 x 12 (302/ac)	Nov 1 – Apr 1
Sawtooth Oak	12 x 12 (302/ac)	Nov 1 – Apr 1
Nutall Oak	12 x 12 (302/ac)	Nov 1 – Apr 1
Shumard Oak	12 x 12 (302/ac)	Nov 1 – Apr 1
Black Oak	12 x 12 (302/ac)	Nov 1 – Apr 1
Pin Oak	12 x 12 (302/ac)	Nov 1 – Apr 1
Water Oak	12 x 12 (302/ac)	Nov 1 – Apr 1
Swamp Chestnut Oak	12 x 12 (302/ac)	Nov 1 – Apr 1
Swamp White Oak	12 x 12 (302/ac)	Nov 1 – Apr 1
Eligible Shrubs		
Species	Amt/ac	Seeding Dates
Spicebush	680 plants (8'x8' spacing)	Nov 1 – Apr 1
Indigobush	680 plants (8'x8' spacing)	Nov 1 – Apr 1

Wild Plum	680 plants (8'x8' spacing)	Nov 1 – Apr 1
Chickasaw Plum	680 plants (8'x8' spacing)	Nov 1 – Apr 1
Washington Hawthorne	680 plants (8'x8' spacing)	Nov 1 – Apr 1
Buttonbush	680 plants (8'x8' spacing)	Nov 1 – Apr 1
Sweet Shrub	680 plants (8'x8' spacing)	Nov 1 – Apr 1
Elderberry	680 plants (8'x8' spacing)	Nov 1 – Apr 1
Rhododendron (East TN only)	680 plants (8'x8' spacing)	Nov 1 – Apr 1
Laurel (East TN only)	680 plants (8'x8' spacing)	Nov 1 – Apr 1
Virginia Sweetspire	680 plants (8'x8' spacing)	Nov 1 – Apr 1
Wild Hydrangea	680 plants (8'x8' spacing)	Nov 1 – Apr 1
Hazel Alder	680 plants (8'x8' spacing)	Nov 1 – Apr 1
Gray Dogwood	680 plants (8'x8' spacing)	Nov 1 – Apr 1
Silky Dogwood	680 plants (8'x8' spacing)	Nov 1 – Apr 1
Flowering Dogwood	302 plants (12'x12' spacing)	Nov 1 – Apr 1
Crabapple	302 plants (12'x12' spacing)	Nov 1 – Apr 1

\* For temporary cover of corn with eastern gamagrass, plant no-till corn at a 45 degree angle to the eastern gamagrass rows. Plant 10 lbs eastern gamagrass per acre about April 1. Apply atrazine (following label recommendations) for corn. Plant early maturing corn about June 1 at rate of 12,000-16,000 plants per acre (1/7 bu). Harvest corn as early as possible.

\*\* PLS = Pure Live Seed